Safety Attribute Inspection (SAI) Data Collection Tool 1.3.11 Continuing Analysis and Surveillance System (CASS) (AW) Revision#: 8 Revision Date: 07/24/2015

ELEMENT SUMMARY INFORMATION

Scope of Element:

Purpose (operator's responsibility): Establish and maintain a system for the Continuing Analysis and Surveillance (CASS) of the performance and effectiveness of the inspection program, the program covering other maintenance, preventive maintenance and alterations, and for the correction of any deficiency in those programs, regardless of whether programs are carried out by the certificate holder or by another person (maintenance provider).

Objective (FAA oversight responsibility): To determine if the operator's CASS:

- Meets all applicable requirements of Title 14 of the Code of the Federal Regulations (14 CFR) and FAA policies,
- Incorporates the safety attributes, and
- Identifies any shortfalls in the operator's CASS.

Specific Instructions:

Intentionally left blank

SUPPLEMENTAL INFORMATION

Regulatory Requirements:

121.135, Manual contents 121.373, Continuing analysis and surveillance.

Related CFRs & FAA Policy/Guidance:

Related CFRs:

Intentionally left blank

FAA Policy/Guidance:

FAA Order 8900.1, Volume 3, Chapter 44, Section 1

FAA Order 8900.1, Volume 6, Chapter 2, Section 30

AC 120-16, Air Carrier Maintenance Programs

AC 120-59, Air Carrier Internal Evaluation Programs

AC 120-72, Maintenance Resource Management Training

AC 120-79, Developing and Implementing a Continuous Analysis and Surveillance System

SAI SECTION 1 - PROCEDURES ATTRIBUTE

Objective:

The questions in this section of the SAI will help verify that the operator's documented procedures identify who, what, when, where, and how those procedures are accomplished. These procedures must allow all personnel to perform their duties and responsibilities with a high degree of safety.14 CFR part 121.135(a)(1)

Tasi	Tasks		
	The inspector shall accomplish the following tasks:		
1	Review the information in the Supplemental Information section of this SAI.		
2	Review the duties and responsibilities for management and other personnel who accomplish the processes associated with this element.		
3	Review the documentation of the processes associated with this element.		
4	Review documented interfaces to identify interactions between related processes, interactions within this element process, and between one person, workgroup, or organization to another that the operator uses to accomplish this process.		

_				
Ques	Questions			
1.1		procedures specify how the CASS will establish and maintain the ability nually analyze inspection program performance and effectiveness?	☐ Yes ☐ No, Explain	
	SRRs: 1	d: Rev # 6 on 03/01/2013 21.373(a) Question: Flag, Supplemental, Domestic		
	Related	Design JTIs:		
	1.	Verify the CASS includes risk assessment and/or system analysis to guard against unintended consequences from a corrective action.		
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1		
	2.	Verify the CASS evaluates the effectiveness of the corrective action.		
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1		
1.2		procedures specify how the CASS will establish and maintain the ability nually provide surveillance of inspection program performance and eness?	Yes No, Explain	
	SRRs: 1	d: Rev # 6 on 03/01/2013 21.373(a) Question: Flag, Supplemental, Domestic		
	Related	Design JTIs:		
	1.	Verify the CASS audit policies and procedures have processes to asses the performance and effectiveness of the inspection program.		

		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1; AC 120-79, Developing and Implementing an Air Carrier Continuing Analysis and Surveillance System	
	2.	Verify CASS audit policies and procedures specify the four types of audits (Internal audits; External audits; "In-house" audits; and Third party audits).	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	3.	Verify procedures include work-in-progress, transaction and system audit methods.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	4.	Verify audit checklists are consistent, complete, and evaluate the 10-elements of the CAMP.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	5.	Verify CASS procedures identify the roles for auditors, managers, management committees, and senior management personnel.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
1.3		rocedures specify how the CASS will establish and maintain the ability ually identify and correct inspection program deficiencies?	Yes No, Explain
	SRRs: 1	: Rev # 8 on 07/24/2015 21.373(a) Question: Flag, Supplemental, Domestic	
	Related	Design JTIs:	
	1.	Verify procedures identify who will be responsible to perform hazard identification, when to perform hazard identification, how to accomplish hazard determination, and how to document the hazard found in the inspection program.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	2.	Verify the procedures identify what training and qualifications are required for personnel that participate in hazard identification.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	3.	Verify the CASS includes responsibilities and guidelines for tracking the implementation of corrective actions according to the timeline.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	4.	Verify the CASS evaluates the effectiveness of the corrective action.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	5.	Verify the CASS corrective action plan is developed based on risk assessment.	

		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	6.	Verify the CASS develops a corrective action proposal that is based on the root cause.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	7.	Verify the corrective action plan tasks are documented, recorded, and retained.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	8.	Verify the CASS has procedures to perform a risk assessment of corrective actions that guard against unintended consequences.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	9.	Verify the CASS determines the corrective action plan was effective.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
1.4	to contin	rocedures specify how the CASS will establish and maintain the ability ually determine inspection program corrections were appropriate, nd effective?	Yes No, Explain
	SRRs: 1	: Rev # 6 on 03/01/2013 21.373(a) Question: Flag, Supplemental, Domestic	
	Related	Design JTIs:	
	1.	Verify the CASS identifies the level of audit necessary to verify effective corrective action implementation.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	2.	Verify the CASS describes when and/or how often the follow-up audits will occur.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	3.	Verify the CASS determines the need to change surveillance planning and/or data collection.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
1.5	to contin	rocedures specify how the CASS will establish and maintain the ability ually analyze the performance and effectiveness of maintenance, we maintenance, and alterations programs?	Yes No, Explain
	SRRs: 1	: Rev # 6 on 03/01/2013 21.373(a)	
		Question: Flag, Supplemental, Domestic	
	Related	Design JTIs:	
	1.	Verify the CASS includes risk assessment and/or system analysis to guard against unintended consequences from a corrective action.	

1	1			
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
		2.	Verify the CASS evaluates the effectiveness of the corrective action.	
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
1.	to	o contin	rocedures specify how the CASS will establish and maintain the ability ually perform surveillance of the performance and effectiveness of ance, preventive maintenance, and alterations programs?	Yes No, Explain
	S	RRs: 1:	: Rev # 6 on 03/01/2013 21.373(a) Question: Flag, Supplemental, Domestic	
	F	Related	Design JTIs:	
		1.	Verify CASS audit policies and procedures specify the four types of audits (Internal audits; External audits; "In-house" audits; and Third party audits).	
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
		2.	Verify procedures include work-in-progress, transaction and system audit methods.	
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
		3.	Verify audit checklists are consistent, complete, and evaluate the 10-elements of the CAMP.	
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
		4.	Verify CASS procedures identify the roles for auditors, managers, management committees, and senior management personnel.	
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
		5.	Verify the CASS audit policies and procedures have processes to asses the performance and effectiveness of the maintenance, preventive maintenance, and alterations programs.	
			Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1; AC 120-79, Developing and Implementing an Air Carrier Continuing Analysis and Surveillance System	
1.	to	o contin	rocedures specify how the CASS will establish and maintain the ability ually identify and correct any deficiencies found in the maintenance, we maintenance, and alterations programs?	Yes No, Explain
	S	RRs: 1	: Rev # 6 on 03/01/2013 21.373(a) Question: Flag, Supplemental, Domestic	
	F	Related	Design JTIs:	
		1.	Verify the procedures identify what training and qualifications are required for personnel that participate in hazard identification.	

		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	2.	Verify the CASS includes responsibilities and guidelines for tracking the implementation of corrective actions according to the timeline.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	3.	Verify the CASS evaluates the effectiveness of the corrective action.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	4.	Verify the CASS corrective action plan is developed based on risk assessment.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	5.	Verify the CASS develops a corrective action proposal that is based on the root cause.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	6.	Verify the corrective action plan tasks are documented, recorded, and retained.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	7.	Verify the CASS has procedures to perform a risk assessment of corrective actions that guard against unintended consequences.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	8.	Verify the CASS determines the corrective action plan was effective.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	9.	Verify procedures identify who will be responsible to perform hazard identification, when to perform hazard identification, how to accomplish hazard determination, and how to document the hazard found in the maintenance, preventive maintenance, and alterations programs.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
1.8	to contin	procedures specify how the CASS will establish and maintain the ability dually determine corrections found in the maintenance, preventive ance, and alterations programs were appropriate, timely, and effective?	Yes No, Explain
	SRRs: 1	l: Rev # 6 on 03/01/2013 21.373(a) Question: Flag, Supplemental, Domestic	
	Related	Design JTIs:	
	1.	Verify the CASS identifies the level of audit necessary to verify effective corrective action implementation.	
		Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	

	 Verify the CASS describes when and/or how often the follow-up audits will occur. 	
	Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
	 Verify the CASS determines the need to change surveillance planning and/or data collection. 	
	Sources: FAA Order 8900.1 Vol 3 Ch 44 Sec 1	
1.9	Do procedures address the intent of the guidance contained in FAA Order 8900.1, Volume 3, Chapter 44, Section 1?	Yes No, Explain Not Applicable
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
1.10	Do Procedures address the intent of the guidance contained in FAA Order 8900.1, Volume 6, Chapter 2, Section 30?	Yes No, Explain Not Applicable
	Updated: Rev # 5 on 09/30/2012 Kind Of Question: Flag, Supplemental, Domestic	
1.11	Do procedures address the intent of the guidance contained in FAA AC 120-16?	Yes No, Explain Not Applicable
	Updated: Rev # 6 on 03/01/2013 Kind Of Question: Flag, Supplemental, Domestic	
1.12	Do procedures address the intent of the guidance contained in FAA AC 120-79?	☐ Yes ☐ No, Explain ☐ Not Applicable
	Updated: Rev # 6 on 03/01/2013 Kind Of Question: Flag, Supplemental, Domestic	
1.13	Does the manual contain policies and procedures that include the duties and responsibilities for personnel involved with this element?	Yes No, Explain
	Note(s): This includes personnel, in addition to those required by 14 CFR part 119, who have authority and responsibility for processes covered by this element.	
	Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(b)(2) Kind Of Question: Flag, Supplemental, Domestic	
1.14	Does the manual refer to the appropriate sections of 14 CFR, and are the procedures consistent with the appropriate 14 CFR references or operating certificate concerning this element?	Yes No, Explain
	Note(s): Procedures for Flag and Supplemental operations must be consistent with applicable foreign regulations as well.	
	Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(a)(4); 121.135(b)(3) Kind Of Question: Flag, Supplemental, Domestic	
1.15	Does the manual contain general policies that require compliance with the	Yes

	SRRs?	☐ No, Explain
	Updated: Rev # 3 on 09/15/2009 SRRs: 121.135(b)(1) Kind Of Question: Flag, Supplemental, Domestic	
1.16	Are the procedures written in enough detail to ensure the effective coordination of work activities from one person, workgroup, or organization to another to ensure the desired result?	Yes No, Explain
	Updated: Rev # 7 on 09/30/2013 Kind Of Question: Flag, Supplemental, Domestic	

	SAI SECTION 1 - PROCEDURES ATTRIBUTE
	Drop-Down Menu
1.	No policy, procedures, instructions, or information specified.
2.	Procedures or instructions and information do not identify who, what, when, where, how.
3.	Policy, procedures, or instructions and information do not comply with CFR.
4.	Policy, procedures, or instructions and information do not comply with FAA policy and guidance.
5.	Policy, procedures, or instructions and information do not comply with other documentation (e.g.,
	manufacturer's data, Jeppesen Charts, etc.).
6.	Policy, procedures, or instructions and information unclear or incomplete.
7.	Documentation quality (e.g., unreadable or illegible).
8.	Policy, procedures, or instructions and information inconsistent across certificate holder manuals
	(FOM - Flight Operations Manual to GMM - General Maintenance Manual, etc.).
9.	Policy, procedures, or instructions and information inconsistent across media (e.g., paper,
	microfiche, electronic).
10.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
11.	Other.

Objective: The questions in this section of the SAI will help determine if controls (i.e. checks and restraints) are designed into the processes associated with this element to ensure policies and procedures are followed to achieve desired results. Tasks The inspector shall accomplish the following tasks: 1 Review the policies, procedures, instructions, and information to understand the controls associated with this element.

Que	Questions		
2.1	Is there a control or controls in place that ensures audits are conducted to determine the performance of its inspection program and its program covering other maintenance, preventive maintenance, and alterations? Note(s): The control should also ensure audits are conducted for programs carried out by any other maintenance provider. Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	Yes No, Explain	
2.2	Is there a control or controls in place to ensure that aircraft equipment performance and operational data is collected to determine the effectiveness of its inspection program and its program covering other maintenance, preventive maintenance, and alterations? Note(s): The control should also ensure data is collected from programs carried out by any other maintenance provider. Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	Yes No, Explain	
2.3	Is there a control or controls in place to ensure that the operator analyzes all collected data to determine the performance and effectiveness of its inspection program and its program covering maintenance, preventive maintenance, and alterations, regardless of whether those programs are carried out by it or by any other maintenance provider? Note(s): Collected data includes audits, aircraft equipment performance, and operational data that are collected for analysis as described in the operator's CASS. Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	Yes No, Explain	
2.4	Is there a control or controls in place to ensure that corrective action plans are initiated when an analysis reveals deficiencies in the programs?	Yes No, Explain	
	Note(s):		

	Controls should ensure that a plan's timeliness is based upon the severity of the deficiencies.	
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
2.5	Is there a control or controls in place to ensure that Continuing Analysis and Surveillance (CASS) meetings and their associated processes are effective in;	Yes No, Explain
	 Identifying issues related to systems and human factors, Determining the root cause of deficiencies, Determining appropriate corrective actions? 	
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
2.6	Is there a control or controls in place to ensure that an adequate follow-up is conducted to ensure the corrective action plans were;	Yes No, Explain
	Appropriate,Timely,Effective?	
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
2.7	Is there a control or controls in place to ensure that the requirements in the CASS for responding to emergency/critical situations are complied with?	Yes No, Explain
	Note(s): Emergency/critical situations are non-routine events such as accidents, incidents, unscheduled landings due to mechanical issues, in-flight engine/propeller separations, hard landings, lightning strikes and rejected take-offs.	
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
2.8	Is there a control or controls in place to ensure that the personnel who carry out the functions of the CASS are properly trained?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
	CALCECTION O CONTROL O ATTRIBUTE	
	SAI SECTION 2 - CONTROLS ATTRIBUTE Drop-Down Menu	
1.	No controls specified.	
2	Documentation for the controls do not identify who what when where how	

	SAI SECTION 2 - CONTROLS ATTRIBUTE
	Drop-Down Menu
1.	No controls specified.
2.	Documentation for the controls do not identify who, what, when, where, how.
3.	Controls incomplete.
4.	Controls could be circumvented.
5.	Controls could be unenforceable.
6.	Resource requirements incomplete (personnel, facilities, equipment, technical data).
7.	Other.

Objective: Process measurements ensure the operator uses an internal evaluation function to de

Process measurements ensure the operator uses an internal evaluation function to detect, identify, and eliminate or control hazards and the associated risk. For airworthiness elements this is a required function of operator's Continuing Analysis and Surveillance System (CASS), required by 14 CFR 121.373. The director of safety and the quality assurance department often work together to accomplish this function for the operator. Negative findings could require amendments to the safety/internal evaluation program or CASS audit forms or checklists.

Tasks		
	The inspector shall accomplish the following tasks:	
1	Review the control questions in Section 2 of this SAI.	
2	Review the operator's policies, procedures, instructions, and information to gain an of the process measurements accomplished for this element	understanding
	stions	
3.1	Are there process measurements that evaluate whether the operator's policies, procedures, and controls are achieving the desired results?	☐ Yes ☐ No, Explain
	Note(s):	
	Inspectors should refer to the controls in section 2 of this SAI for possible process measurements for this element.	
	Persons engaged in this process should have a method for identifying undesired results.	
	Updated: Rev # 3 on 09/15/2009	
	SRRs: 121.373	
	Kind Of Question: Flag, Supplemental, Domestic	
3.2	Do the operator's process measurements assess the performance of the processes associated with this element?	Yes No, Explain
	Note(s):	
	Verify audits exist to measure this element's performance. Verify audits are scheduled for this element.	
	Verify audits are scrieduled for this element. Verify audits ensure everyone, including all outsource providers; comply with the operator's program, manual and all applicable regulations and statutes.	
	Updated: Rev # 3 on 09/15/2009 SRRs: 121.373	
	Kind Of Question: Flag, Supplemental, Domestic	
3.3	Does the operator's program require the documentation of process measurement results?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009	
	Kind Of Question: Flag, Supplemental, Domestic	_
3.4	Does the operator's program describe how the process measurement results are used to improve the ability to achieve the desired results?	Yes No, Explain

	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
3.5	Does the organization that conducts the process measurements have direct access to the person with responsibility for this element?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	

	SAI SECTION 3 - PROCESS MEASUREMENT ATTRIBUTE Drop-Down Menu
1.	No process measurements specified.
2.	Documentation for the process measurements does not identify (who, what, when, where, how).
3.	Inability to identify negative findings.
4.	No provisions for implementing corrective actions.
5.	Ineffective follow-up to determine effectiveness of corrective actions.
6.	Resources requirements (personnel, facilities, equipment, technical data).
7.	Other.

SAI SECTION 4 - INTERFACES ATTRIBUTE Objective: Data collected in this section helps the principal inspector determine if the operator identifies, documents and manages change between this process and other related processes within the operator's organization. It is important for the operator to identify and document where interactions between processes exist, and to have a method of managing change between these processes. Written policies, procedures, or instructions and information that are interrelated and located in different manuals within the operator's manual system must be consistent to allow personnel to perform their duties and responsibilities with a high degree of safety. Tasks The inspector shall accomplish the following task: 1 Review interfaces associated with the processes for this element. Questions Yes Does the operator identify and document the interfaces between processes? ☐ No, Explain Updated: Rev # 7 on 09/30/2013 Kind Of Question: Flag, Supplemental, Domestic 4.2 Does the operator have a method to evaluate the impact of changes in this Yes No, Explain process to other related processes that interface with this process? Updated: Rev # 7 on 09/30/2013 Kind Of Question: Flag, Supplemental, Domestic

	SAI SECTION 4 - INTERFACES ATTRIBUTE
	Drop-Down Menu
1.	No interfaces specified.
2.	The following interfaces not identified within the certificate holder's manual system:
3.	Interfaces listed are inaccurate.
4.	Specific location of interfaces not identified within the manual system.
5.	Other

SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE

Objective:

Data from questions in this section will help the determine if there is an identifiable, qualified (when required by CFR), and knowledgeable person who is:

- Responsible for the process,
- Answerable for the quality of the process, and
- Has the authority to establish and modify the process.

Tasks	
	The inspector shall accomplish the following tasks:
1	Identify the person(s) who has overall responsibility for this element.
2	Identify the person(s) who has the authority to revise the procedures associated with this element.
3	Review the duties and responsibilities of the above person(s).
4	Review the appropriate organizational chart.

Questions		
5.1	Is an individual(s) identified who is responsible for the quality of the procedures associated with this element?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
5.2	Is an individual(s) identified who has the authority to establish and modify the policies, procedures, instructions, and information associated with this element?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
5.3	Are duties and responsibilities documented for those who manage the procedures associated with this element?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	
5.4	Does the operator document the procedures for delegation of authority for this element?	Yes No, Explain
	Updated: Rev # 3 on 09/15/2009 Kind Of Question: Flag, Supplemental, Domestic	

	SAI SECTION 5 - MANAGEMENT RESPONSIBILITY & AUTHORITY ATTRIBUTE
	Drop-Down Menu
1.	Not documented.
2.	Documentation unclear.

- 3. Documentation incomplete.
- 4. Other.